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Explaining the science of climate change

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New web pages which explain the science behind the headlines on climate change have been launched by Government Chief Scientific Adviser Professor Sir John Beddington.

Earth seen from space

The web pages, produced with the support of leading scientists from the Met Office Hadley Centre and others, present an overview of some of the most important areas of study in climate change science. This overview will help anyone wishing to get beyond the day-to-day headlines and gain a deeper understanding of the fundamental scientific issues involved.

Professor Julia Slingo, Met Office Chief Scientist, said: "I am delighted to have been consulted in the development of Sir John Beddington's overview and guide to the underpinning science and observations of climate change.

"Our changing climate has huge implications for both policy and people, so it is essential we explain the complex science with as much clarity as possible. These web pages, authored by the Government's Chief Scientific Advisor, are an important reference and will contribute to helping people understand the science of climate change".

The online resource explains the scientific issues, evidence and principles behind key points, such as that:

- human activities, in particular burning fossil fuels and land-use changes, release CO2 and other greenhouse gases into the atmosphere;
- greenhouse gases trap heat radiated by the Earth, which warms the Earth's surface and the atmosphere;
- CO2 levels are now over a third higher than they were before the industrial revolution, and are continuing to rise fast. The level now reached is the highest seen for at least 800,000 years;
- several independent analyses show global average temperatures to be rising;
- many other observations, such as Arctic summer sea-ice extent, confirm the long-term warming trend.

Sir John Beddington said: "Reporting on climate change science has often created more heat than light. The evidence is compelling that climate change is happening, that human activities are the major driver for this, and that the future risks are substantial.

"At the same time, there is much we need to understand better; for example, the pace and extent of the changes we can expect, and regional impacts. I am grateful for the invaluable advice and inputs from Met Office experts that have helped in developing this new Government Office for Science climate science resource."

This guide from Sir John Beddington is also supported by the Met Office guide to climate change.

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